

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1-31 (Cancelled)

32. (original) A latching micro magnetic switch, the switch comprising:

a reference plane;

a magnet, located proximate to a supporting structure, the magnet producing a first magnetic field with uniformly spaced field lines at obtuse angles with respect to the reference plane;

a cantilever, supported by the supporting structure, having an axis of rotation lying in the reference plane, and having a magnetic material that makes the cantilever sensitive to the first magnetic field, such that the cantilever can rotate about the axis of rotation between first and second states; and

a conductor, located proximate to the supporting structure and the cantilever, configured to conduct a current, wherein the current produces a second magnetic field having a component approximately parallel to the reference plane and approximately perpendicular to the rotational axis of the cantilever, which causes the cantilever to switch between the first and second states.

33. (original) The switch of claim 32, wherein once switched to a one of the first and second states, the cantilever is latched in the one of the first and second states by the first magnetic field until further switching occurs.

34. (original) The switch of claim 32, wherein the conductor and the cantilever are formed on the supporting structure.

35. (original) The switch of claim 32, wherein the cantilever is provided between the substrate and the magnet.

36. (withdrawn) The switch of claim 32, wherein a magnitude of the second magnetic field is smaller than a magnitude of the first magnetic field.

37. (withdrawn) The switch of claim 32, wherein the supporting structure is positioned between the cantilever and the magnet.

38. (original) The switch of claim 32, wherein the supporting structure is a substrate.

39. (currently amended) The switch of claim 32, wherein:
the first state is an ON state ~~during~~; and
the second state is an OFF state.

40. (withdrawn) The switch of claim 32, wherein:
the first state is an OFF state; and
the second state is an ON state.

41. (original) The switch of claim 32, wherein a longitudinal axis of the permanent magnet is at an acute angle within respect to a longitudinal axis of the supporting structure.

42. (withdrawn) The switch of claim 32, wherein a longitudinal axis of the permanent magnet is substantially parallel to a longitudinal axis of the supporting structure.

43. (original) The switch of claim 32, wherein one of the first and second states is a temporary state.